## **ABSTRACT**

A high gain and omni-directive dual-patch antenna (1) for wireless communication under IEEE 802.11b/g standard includes a top and a bottom radiating patches (10) and (20) which have the same dimension, each of which in effect being a ground portion of the other, an air parch dielectric substrate between the two radiating patches, a feeding cable (30) inserted between the two radiating patches, and a support potion (40). A plurality of matching holes (202) is defined in both radiating patches and is provided for fast impedance match tuning and heat dissipation.